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NATURAL RESOURCES DEFENSE COUNCIL

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Via Federal Express

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Santa Ana Regional Water Quality Control Board
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Mr. Matt Yeager
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Re: Comments on Model Water Quality Management Plan for San Bernardino County and the Incorporated Cities of San Bernardino County

Dear Sirs:

On behalf of Defend the Bay and the Natural Resources Defense Council, we wish to submit the following comments on San Bernardino County's submittal of revisions to the Model Water Quality Management Plan (the "Model"). As you may know, the Inland Empire, consisting of San Bernardino and Riverside Counties, is the fastest growing region in the State. *See* Southern California Association of Governments, Census Data at <http://www.scag.ca.gov/census>. The unchecked growth experienced by these two counties has combined with "helter-skelter development" to leave the Inland Empire as the nation's worst example of urban sprawl. Scott Gold and Massie Ritsch, "Swallowed by Urban Sprawl Relocating to Inland Empire Puts People in the Midst of What They Fled, Researchers Find," Los Angeles Times B1 (Oct. 18, 2002). As acres of open space are converted to residential and commercial use, San Bernardino County faces a golden opportunity to address the State's most important water quality issue—storm water runoff—at the root of the problem rather than having to apply more costly and less effective solutions that address the symptoms of the problem down the line. Accordingly, it is crucial that the Regional Board require that the County fully comply with Order No. R8-2002-0012 (NPDES Permit No. CAS618036) (the "Permit") by presenting a specific and robust Model WQMP.

The County's submission, however, falls short of this standard. As outlined in the comments below, the Model fatally lacks clarity and specificity, leaving too much

to the imagination of project applicants and application reviewers. As such, the Model cannot assure compliance with the Permit and worse, *does* assure that water quality in San Bernardino will continue to degrade.

Moreover, the Model falls below the standard set by the recently approved model WQMP for Orange County, demonstrating not only that the Model is inadequate in absolute terms but also that it is inadequate in relative terms. The Orange County model WQMP sets standards for waters downstream of San Bernardino County that are, as a whole, more protective of water quality. Yet, pollution from San Bernardino County may swamp the gains that a well - implemented model WQMP in Orange County would yield. To avoid such a situation, the Regional Board, whose jurisdiction is watershed-based, must require the County to achieve at least an equivalent standard of control as does Orange County.

For these general and the following specific reasons, the Regional Board, therefore, should require the County to fully address the following comments and re-submit an adequate Model:

Section 1.1 (Introduction):

The Model aptly states that an effective and acceptable WQMP must meet the requirement that the discharge of any listed pollutant to an impaired water body on the 303(d) list shall not cause or contribute to an exceedance of receiving water quality objectives. The Model, however, fails to state anywhere that the permittees must ensure that the discharge of *any* pollutant must not cause or contribute to an exceedance of *any* receiving water quality standard. Permit § IV. The Model must relate to the developer the process by which such a determination will be made so that the resulting project WQMP will take into account the cumulative impacts of a built-out watershed. Absent such a discussion, developers will not be able to formulate plans to accommodate these water quality concerns, leading to an overall degradation of San Bernardino County waters until such time as all the waters will be impaired. This reason alone is sufficient to reject the Model.

Section 2.2.1 (Identifying pollutants of concern):

In identifying the pollutants of concern generated by a project, the Model only considers the pollutants expected from the type of development and land use. To fully characterize the pollutants of concern from a project, however, site-specific conditions must be considered. These conditions include the presence of legacy pesticides, nutrients, or hazardous materials in the soils. A project applicant, therefore, must be required to include a discussion of such site-specific conditions.

Furthermore, Table 2-1 is inadequate for determining the pollutants of concern for a project. First of all, the table omits any reference to pesticides and oxygen-demanding substances, even though Attachment C specifically addresses these types of pollutants as pollutants of concern. Second, the pollutants associated with runoff from specific land-use types

have long been established through years of scientific research, beginning with the NURP process two decades ago. It is inappropriate for the County to alter Table 2-1 to list the land-use types as only "potential" sources of the associated pollutants, especially absent any citation to supporting scientific research. As the Regional Board staff have commented before, "it should take a very convincing argument ... to remove a potential pollutant usually associated with a land use type." Letter of Mark E. Smythe, Chief Coastal Storm Water Unit, Santa Ana Regional Water Quality Control Board to Chris Crompton, County of Orange PFRD of May 21, 2003 at 6. The County presents no argument to support its modifications. Nor should the label "potential" be used given that it implies an opportunity to alter the table based on site-specific conditions. When years of research establish that a pollutant is associated with a particular land use type, any development or significant redevelopment must address that pollutant. Accordingly, the Board should not accept Table 2-1.

Lastly, the Model fails to require the applicant to consider *all* downstream waters. It is meaningless for an applicant to consider only the immediate receiving water and the impacts on that water when the flows from the project will invariably impact waters downstream from that receiving water as well. Accordingly, the Model is inadequate in protecting water quality and should be disapproved.

Section 2.2.2 (Identifying hydrologic conditions of concern):

Overall, it is difficult to understand how this section protects water quality and maintains pre-project hydrologic conditions. First, the Model sets forth *a subjective* standard of "significance," which the Model fails to define in any manner and which lacks all clarity in implementation (the standard, moreover, is inappropriate given that the Permit requires the permittees to minimize hydrologic changes resulting from new development and redevelopment). Second, the objective criteria that the County sets forth fall short of establishing any clear and defensible standard. For instance, Criterion A exempts projects that discharge runoff into an "improved" reach of an MS4. The Model, however, does not define "improved," leaving one to question whether a partially-improved or partially-lined channel counts or whether the channel must be fully lined for the criterion to be met. Additionally, the criterion fails to consider downstream reaches and the potential impact of upstream discharges on them, potentially exempting hydrologic analysis based only on the nature of the most proximate channel. Likewise, Criterion B exempts discharges in accordance with a locally approved and adopted Master Plan of Drainage and Water Quality. There is no assurance, however, of the existence of any such plans, nor that those plans have been developed in compliance with the terms of the Permit and the CWA. There is, moreover, no ability for the public to comment on such plans (and even if there were, the logistical barriers for such public participation are formidable, rendering this scattered approach inconsistent with the principles set forth in 40 C.F.R. Part 25). Where compliance is buried by reference to such unseen plans, it becomes impossible to evaluate the Model's effectiveness.

Third, while the Model specifies that project applicants must supply sufficient information to demonstrate that the project will not adversely impact the hydrologic regime, the

Model fails to require the project proponent to conduct an actual drainage study that will quantify and qualify the condition of concern rather than merely identify it. Such a study is critical in later evaluating the effectiveness of the BMPs applied. Similarly, the Model again introduces a tremendous amount of subjectivity in setting the standard of proof as having to demonstrate that the project "will not *adversely impact*" the hydrologic regime. A more precise standard would require the applicant to demonstrate that pre-project hydrologic conditions are maintained.

Overall, the Model should present a much more specific and stepwise analytical procedure for evaluating hydrological issues of concern in order to ensure that the project WQMP minimizes those issues of concerns. Absent such an analytical process, the Model cannot be considered to be sufficiently protective of water quality to be approved of by the Board.

Section 2.3 (Best management practices):

The Model states that "All projects shall include site design BMPs." *See* Model at 2-3. This statement is confusing and ambiguous as it does not state which site design BMPs are required, leaving the impression that a single site design BMP may be sufficient. Subsequent language states that site design BMPs be used "where appropriate," yet the Model fails to define what "appropriate" means, leaving open-ended and up to debate the determination of which site design BMPs must be included in a project WQMP to be approved. Instead, the Model should be consistent throughout the discussion of site design BMPs, making explicit what is currently implicit-that all site design BMPs must be incorporated into a project except where, due to site-specific reasons, a BMP cannot apply. In that scenario, the project proponent must justify and the Agency should approve the omission of BMPs. At issue is whether the Model provides sufficient specificity for both developers and application reviewers to know what is required. As it stands now, the Model is inconsistent and wholly lacks sufficient detail and specifics.

Section 2.3.1 (Source Control BMPs):

The Model contributes to even greater confusion by referring to "Design BMPs" as a subset of source control BMPs. Source control and site design BMPs are separate categories of BMPs and the Model must maintain that distinction to minimize confusion. Accordingly, Section 2.3.1 should be titled, simply, "Source Control BMPs" and the "design BMPs," which are a subset of source control BMPs distinct from site design BMPs, must be redesignated as "structural" or "system" BMPs.

Specific comments regarding individual BMPs follows:

- Storm Drain Signage: The BMP should also require that signs and prohibitive language and/or graphical icons that prohibit illegal dumping at public access points along channels and creeks within the project area be posted. The legibility of signs and drain stencils must also be maintained.

- Protection of slopes and channels: The Model must include BMPs to decrease the potential for erosion of slopes and channels and include provisions for landscaping hillsides.
- Street Sweeping Private Streets and Parking lots: The BMP should specify when during the year private streets and parking lots must be swept, such as "in late summer or early fall, prior to the start of the rainy season."
- Retail Gas Outlets: The Model should require BMPs regarding Retail Gas Outlets.

Section 2.3.3 (Treatment Control BMPs):

Section 2.3.3 starts out by stating that treatment control BMPs must be selected with respect to identified pollutants of concern, but neglects to mention hydrologic conditions of concern. The language, accordingly, must be changed to comply with the Permit terms. Language must be added also that treatment control BMPs must be located to treat the required runoff volume or flow prior to discharging to any receiving water.

Section 2.3.3.1 (Flow-Based Design):

Section 2.3.3.1 specifies that the Rational Formula ($Q=CiA$) be used to calculate the flow for which a flow-based BMP should be designed. The Model's reliance on this formula is outdated and overly simplistic. It is commonly known that the Formula incorporates serious oversimplifications and ignorance of certain factors that affect the actual hydrologic process that occurs at a particular site. At the very least, the Board should require the County to conduct an analysis to evaluate the use of this formula versus different methodologies for determining the flow volumes to be treated.

Section 2.3.4 (Equivalent Treatment Control Alternatives):

Section 2.3.4 provides that if on-site treatment control BMPs are determined to be infeasible or impracticable, equivalent treatment *may* be provided off-site when approved by the permittee. The Model's language, however, must *require* that equivalent off-site treatment be provided. Any waiver of on-site treatment control must be strongly linked to an equivalent reduction of pollution elsewhere in the watershed in order to comply with the Permit terms. The Model's language is also flawed in that the Model fails to specify the standard of proof by which the permitting agency will determine that on-site treatment is infeasible or impracticable. The standard by which a waiver is granted should be explicitly set forth in the Model and should set a high bar.

Furthermore, the conditions set forth for off-site treatment to meet do not adequately protect water quality. First, the conditions ignore the adverse impact to waters downstream from the project but upstream from the off-site treatment facility. As with the regional treatment

provisions of the Model, any off-site treatment facility must not use waters of the United States to transport untreated runoff from a project site. Furthermore, the Model must also specify that no waiver may be issued where doing so will result in causing or contributing to an exceedance of water quality standards. Lastly, the Model should specify that the Executive Officer of the Regional Board should be notified of any waiver within 5 days of the waiver being issued. Such notice should include a copy of the waiver documentation and the Project WQMP. This will provide a check on the permitting agency and ensure independent review of the propriety of any waiver that is granted.

Section 3 (Regional-Based Water Quality Control):

Regional treatment facilities, while an appealing solution, should only be relied on where greater benefits arise from the use of a regional treatment facility. For example, regional treatment should be considered only where such treatment exceeds the water quality solution that can be provided onsite.

More specifically, certain conditions set forth as requirements for approval of the use of regional treatment inadequately protect of water quality. For instance, the condition that specifies that there must be adequate capacity in the regionally-based BMP is ambiguous. That condition should be strengthened to define exactly what is "adequate" capacity. For instance, the Model state that adequate capacity exists if the regional BMP is designed to treat more than the cumulative volume (or flow) of runoff from all new development or significant redevelopment projects included in the regional or watershed plan. Likewise, the condition that the regionally-based treatment BMP "address" the project's pollutants of concern leaves it unstated that effluent from the treatment BMP must not cause or contribute to an exceedance of receiving water quality standards, as required by the Permit. Given the multiple analytical dimensions associated with approving the use of regional treatment facilities, public input should be required, either at the level of the permittee or at the regional board level.

In addition, the approach taken in Orange County should be adopted here: namely, because of the significance of any approval of a regional facility and the relative lack of standards set forth in the Model, the Executive Officer should approve any facility as a condition precedent to any waiver of site-specific SUSMP requirements in reliance on the regional facility.

Attachment A:

The Permit requires that the County seek public input in developing the Model. *See* Permit ¶ 1.11. Yet this is the first opportunity that the public has had to comment on the WQMP Template that the County attaches as Attachment A. This template was absent from the version of the Model that the County previously made available for public review and comment. Given that this Attachment, which represents a template for project WQMPs, is critical to the proper implementation of the Model, the comments below, which range from addressing minor corrections to critical substantive omissions, *must* be directly addressed by the County prior to Regional Board approval of the Model.

Mr. Milasol Gaslan

Mr. Matt Yeager

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- Scattered throughout Attachment A are references to "Priority" projects (pp. A-4, A-6, A-8). The Model never mentions "priority" projects. Such references should be deleted.
- Section 2 is currently entitled "Pollutant Identification" and discusses only pollutants of concern, ignoring hydrologic conditions of concern. As set forth in Section 2.2.2 of the model, such hydrologic conditions of concern must be identified and addressed in the project WQMP. Section 2 of the template, therefore, should be re-titled "Impact Identification" and should include a subsection that discusses the required hydrologic and cumulative impact analysis that must be performed by the project applicant.
- The table in Section 3.1 is entitled "Site Design and Source Control BMP Selection Matrix." As discussed above, this creates confusion regarding the distinction between site design and source control BMPs.
- Section 3.3 states that treatment control BMPs must be selected with respect to identified pollutants. Such BMPs should also be selected with respect to the identified hydrologic conditions of concern.

Attachment C:

Attachment C contains a discussion of pollutants of concerns. As it stands, the discussion is relatively cursory. NRDC and Defend the Bay recommend that at the least, pathogens and coliform be replaced with bacteria and viruses in order to conform to the language used in the rest of the Model. The discussion of metals can be made more robust, including a discussion of the sources of metals. The discussion of nutrients has a spurious "is" in the second sentence that should be deleted. The discussion of pesticides should mention that part of the root of the problem associated with pesticides is excess or improper application. The discussion of organic compounds should specify the manner in which these compounds often enter the environment, such as by rinsing off objects. The discussion of oxygen-demanding substances should specify that proteins, carbohydrates, and fats are examples of biodegradable organic compounds, and that ammonia and hydrogen sulfide are examples of oxygen-demanding compounds.

Attachment D:

Attachment D purports to provide local rainfall curves as required by the Permit. As the Attachment acknowledges, however, the rainfall curves do not represent those for San Bernardino County, but that these curves are under development. The Board should require that the County be specific about its plans to develop these curves, such as requiring specific dates by which the analysis will be complete.

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Thank you for considering our comments. Given that the Model WQMP sets the groundwork for implementing the provisions of the San Bernardino County Stormwater Permit, the Model must provide useful and specific criteria to ensure that threats to water quality from new development and significant redevelopment are reduced. As is evidenced by the comments above, the County's efforts have so far fallen short. Accordingly, we suggest that the Board require the County to incorporate these comments.

As a final comment, NRDC and Defend the Bay would like to emphasize that it is nearly impossible to definitively judge the County's program until the County submits the associated DAMP and any other adjunct documents that might be produced related to the County's overall program. For instance, it would be highly appropriate for the County to attach a set of definitions to the Model to define such terms as "waters of the United States," etc. Consideration of the Model WQMP at this time, in isolation from these other documents, therefore cannot be complete.

Sincerely,


David S. Beckman
Dan Gildor
Natural Resources Defense Council and
Defend the Bay

cc: Mr. Robert Caustin, Defend the Bay